Fishy Who's Who

Objective

Students identify fish which live in fresh and salt water habitats.

Curricular Areas

Math (geometric figures), Social Science (water environments), Language Arts (class vocabulary list, writing and reading fish names), Art (coloring fish), Science (types of fish, where they live, and what they look like)

California Content Standards

Science: **K**–Life 2, Earth 3, Investigation 4; **1st**–Life 2, Investigation 4; **2nd**–Life 2, Earth 3, Investigation 4
Math: **K**–Number 1.0, Algebra 1.0, Geometry 2.0, Data 1.0, Reasoning 1.0, 2.0; **1st**–Measurements & Geometry 2.0, Statistics 1.0
Social Science: **K**–2 & 4; **1st**–2 & 6; **2nd**–2 & 4
Language Arts: **K**–Written/Oral 1.0, Listening 1.0, 2.0; **1st** –Reading 1.0, Written/Oral 1.0, Listening 1.0, 2.0; **2nd** –Reading 2.0, Listening 1.0

Method

Students will use a fishing game to learn about various fish species and their different types of habitats.

Materials

- Copies of fish from following pages
- Cardboard, tag board or old file folders
- Pencil or dowel (used for fishing pole)
- Cardboard box or large plastic container
- Paper clips
- String and strong small magnet (to be tied on to string)
- Crayons or colored pencils, scissors, and glue

Background

Fish are aquatic animals, but not all fish can live in the same kind of water. Fish can tolerate different environmental conditions, including different: amounts of salt and oxygen, types and amounts of food, water temperature, hiding areas (cover and the bottom), and breeding areas. Salt concentration is one major factor that determins if a fish can live in an area. Some fish cannot live in areas where there is much salt and others need salt in the water to live. However, there are fish that can live in both saltwater and freshwater. Freshwater areas include most lakes, reservoirs, and rivers. Some common freshwater fish are bluegills, catfish, bass, perch, trout, and crappie. The kidneys of saltwater fish keep a proper balance of salt in the fish's body. Popular saltwater fish are flounder, striped bass (also found in fresh water), tuna, halibut, rockfish, and yellowtail. Some fish live in saltwater but swim up streams and rivers to spawn (lay their eggs). These fish are called anadromous fish. They include shad, salmon and steelhead trout.

Procedure

1. Before starting this lesson the teacher will need to:
    a. Reproduce the pictures of the fish and glue them onto tag board, then cut the board into geometric shapes.
    b. Slip a paper clip onto each geometric shape.
    c. Prepare a fishing pole by tying a 12 to 18 inch length of string onto the wooden dowel or pencil and attaching a magnet onto the other end of the string.
    d. Use a cardboard box or plastic container as the water (pond, ocean etc.).
    e. Reproduce ID keys for each student.
2. Ask students if they know the difference between the water in rivers, streams and lakes and the water found in the ocean.
3. Ask students if they can name fish that live in freshwater and saltwater. Consider making a list of the class' ideas for use later. Ask students if they know about fish that use both fresh and salt water. Explain that salmon and a few other species of fish start life in freshwater, spend adult life in saltwater, and then return to freshwater to spawn (lay eggs). A map or large poster showing rivers, lakes and the ocean might be helpful. Students ideas about what fish live where may be written on the map or poster.
4. Have each student use the fishing pole to catch a fish. They then use their ID Key to identify the fish and its habitat.
5. Have students write the name of the fish on their fish card and using the color key, color their fish

Continued

its natural colors. Students may trade their caught tagboard fish for an enlarged copy to color and keep. A worksheet on habitat maybe added to the back side of the enlarged copy.

Extensions

1. Have each student learn more about their fish; what it eats and how color provides protection.
2. Visit an ocean, lake, river, pond, or stream.
3. Have students brainstorm about the different waterways in their community and the fish they support.

Evaluation

- Name a freshwater fish and a saltwater fish.
- Have students explain how an anadromous fish uses both freshwater and saltwater during their life.
- Name one or two reasons why fish are important.

Notes

Fresh Water Fish

Channel Catfish
Olive-green to bluish body with light underside

Bluegill
Olive with blue and orange sides, underside is orange

Rainbow Trout
Black spots on top and sides, olive and blue body and pink side stripe

Ocean Fish (Salt water)

Great White Shark
Gray body with white underside

Garibaldi
California State Marine (Salt Water) Fish, is bright orange

Brown Rockfish
Dark brown top with lighter brown sides and white underside

Anadromous Fish: Live in both Fresh and Salt Water

Salmon (Chinook)
Silver-brown body with dark spots on back and tail

Striped Bass
Body has olive colored top with silver sides and white underside

Steelhead Trout
Body is silver and blue with light pink side stripe and white underside. The top and side of the body and tail have dark spots

Color Key:

1 Salmon Pink	4 Silver/Gray	7 Brown
2 Olive Green	5 Black	8 Orange
3 Turquoise Blue	6 White